

Notice of Allowability

Application No.

10/820,632

Examiner

David S. Baker

Applicant(s)

GARDNER, ROBIN PIERCE

Art Unit

2884

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 09April 2007.
2. ☒ The allowed claim(s) is/are 1-7,9-11,14-21 and 24-26.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

DETAILED ACTION

Response to Amendment

1. The amendment filed on 09 April 2007 has been accepted and entered.

Allowable Subject Matter

2. Claims 1-7, 9-11, 14-21, and 24-26 are allowed.
3. The following is an examiner's statement of reasons for allowance:

Regarding claim 1, the prior art of record does not disclose or reasonably suggest, along with the other claimed limitations, a gamma ray detector assembly for placement in a logging tool in a borehole comprising: namely, a signal processor configured to graph gamma ray events from the first and second gamma ray detectors as a function of energy in a two dimensional representational plot. The prior art of record often makes use of signal processor for graphing single detector energy vs. count rate, beta vs. gamma count rate, time vs. count rate, as well as other plots for isotope locating and/or determining. However, the use of a 2-D detector "A" energy vs. detector "B" energy plot has not been disclosed or reasonably suggested.

Regarding claims 2-7, 9-11, and 14, the balance of claims is found allowable due to their dependence upon an already allowed claim and lacking any technical errors.

Regarding claim 15, the prior art of record does not disclose or reasonably suggest, along with the other claimed limitations, a method of detecting gamma rays in a borehole comprising: namely, graphing gamma ray events from the first and second gamma ray detectors as a function of energy in a two dimensional representational plot. The prior art of record often makes use of signal processor for graphing single detector

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energy vs. count rate, beta vs. gamma count rate, time vs. count rate, as well as other plots for isotope locating and/or determining. However, the use of a 2-D detector "A" energy vs. detector "B" energy plot has not been disclosed or reasonably suggested.

Regarding claim 16-21 and 24, the balance of claims is found allowable due to their dependence upon an already allowed claim and lacking any technical errors.

Regarding claim 25, the prior art of record does not disclose or reasonably suggest, along with the other claimed limitations, a method of detecting gamma rays in a borehole comprising: namely, graphing gamma ray events from the first and second gamma ray detectors as a function of energy in a two dimensional representational plot. The prior art of record often makes use of signal processor for graphing single detector energy vs. count rate, beta vs. gamma count rate, time vs. count rate, as well as other plots for isotope locating and/or determining. However, the use of a 2-D detector "A" energy vs. detector "B" energy plot has not been disclosed or reasonably suggested.

Regarding claim 26, the prior art of record does not disclose or reasonably suggest, along with the other claimed limitations, a method of detecting gamma rays in a borehole comprising: namely, graphing gamma ray events from at least two gamma ray detectors as a function of energy in a two dimensional representational plot. The prior art of record often makes use of signal processor for graphing single detector energy vs. count rate, beta vs. gamma count rate, time vs. count rate, as well as other plots for isotope locating and/or determining. However, the use of a 2-D detector "A" energy vs. detector "B" energy plot has not been disclosed or reasonably suggested.

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4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

5. Applicant's arguments, see pages 7-10 of the amendment, filed 09 April 2007, with respect to claims 1-7, 9-11, 14-21, and 24-26 have been fully considered and are persuasive. The rejection of the claims has been withdrawn.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

US 7,214,942 B2 – Gardner discloses a 2-D energy vs. energy plot for gamma ray detectors but does not disclose the information early enough to satisfy 35 U.S.C. 102 or 103 requirements.

US 2007/0085014 A1 – McIntyre discloses a 2-D gamma energy vs. beta energy plot for particle identification.

US 2007/0051892 A1 – Warburton discloses a 2-D energy vs. time plot for coincidence detection.

US 6,747,270 B2 – Pereira discloses a 2-D near count rate vs. far count rate plot for well loggers.

US 5,390,115 A – Case discloses a 2-D near count rate vs. far count rate plot for well loggers.

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US 5,105,080 A – Stoller discloses functional plotting for hydrocarbon locating.

US 5,023,449 A – Holenka discloses energy vs. count rate plotting for gamma ray detectors.

US 4,384,205 A – Flaum discloses logarithmic plotting for well bore loggers.

US 4,251,724 A – Vagelatos discloses functional plotting for neutron detectors.

US 3,041,455 A – Meyerhof discloses a well bore logging apparatus.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David S. Baker whose telephone number is (571) 272-6003. The examiner can normally be reached on MTWRF 9:30am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David P. Porta can be reached on (571) 272-2444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DSB



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